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ABSTRACT

The paper describes an approach to assessing the visual functioning of severely and/or profoundly impaired students. The assessment consists of three phases: identification, testing, and formal assessment. A checklist is used for identification. Testing considerations include medical factors (such as medications and effects of other handicaps), reinforcement factors (e.g., social reinforcement and light reinforcement), and time factors (medication schedule and location of tests are among factors to be considered). Procedures for the formal assessment include the use of a Light Chart, and/or an Object Chart. Among findngs noted are pupil response, peripheral response, focusing, and tracking. The results are used for program planning and as a method of determining visual performance abilities. Appended are the checklist, light and object charts, and the evaluation summary form. (PHR)

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FUNCTIONAL VISION ASSESSMENT FOR THE SEVERELY IMPAIRED/VISUALLY HANDICAPPED

Presented at the

CEC 58th International Convention

April 24, 1980

By

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~~Shirley Dougherty~~
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I. Introduction

The Education for All Handicapped Children Act of 1975 mandates that all children are entitled to "a free appropriate public education." [Public Law 94-142, 94th Congress, S.6, November 29, 1975, p.3] This includes those severely impaired children in institutions, and now in many public schools, who are non-verbal, non-ambulatory, unresponsive to their environment, and totally dependent on caretakers for all their needs, indeed for their very existence. The law further states that the education of these children must "emphasize related services designed to meet their unique needs..."(p.3). Such services might include those provided by the itinerant vision consultant. If a child has been diagnosed as (or is thought to be) severely visually impaired, part of the itinerant vision consultant's responsibility may be to develop a program of vision stimulation to improve the visual functioning of that child. We know from the studies of Barraga and her associates that visual functioning is a learned ability that can be taught to children with serious visual impairments. [Barraga, N. Visual Efficiency Scale. Louisville, Ky.: American Printing House for the Blind, 1964. Ashcroft, S., Halliday, C., and Barraga, N. Study II: Effects of Experimental Teaching on the Visual Behavior of Children Educated as Though They Had No Vision. Nashville, Tenn.: George Peabody College, 1965]

Where and how does one begin with the severely impaired child? Of course, with a comprehensive assessment of visual functioning. We must know how the child is presently functioning before we can program for improvement. It is important to note that we are not very concerned here with visual acuity. Individuals working with such a child are anxious to know if he can see and how much he can see.* The purpose of the assessment, then, should be threefold: 1) to identify those children who are visually handicapped, 2) to establish a starting point for a vision stimulation program, and 3) to advise the classroom teacher as to what she can expect from a child visually.

* The federal government has recognized this and has eliminated visual acuity as the criterion for identifying children as visually handicapped.

The issue is a practical one, and the visual assessment must also be practical. For the purposes of identification and programming it should answer the following questions for both the vision consultant and the classroom teacher:

1. Is the child visually handicapped?
2. Does the child respond to light or objects?
3. Does the child use both eyes or just one?
4. Does the child have peripheral as well as central vision?
5. What is the smallest object the child can see at the greatest distance?
6. Can the child focus, follow, track, and reach for light and objects?

In response to the needs described above, the authors have developed a functional vision assessment which has been used with more than one hundred severely impaired children in the School District of Philadelphia over the past five years. Of that number, 89 were classified as visually handicapped, and individual vision stimulation programs were developed as a direct outcome of the assessment. The other 23 were found not to be visually handicapped. It is essential to bear in mind that no child was considered untestable.

The complete assessment consists of three phases: 1) identification; 2) testing considerations; 3) formal assessment. The first two phases, while preliminary, are necessary before the third phase, formal assessment, can be properly performed.

II. Identification - "Educator's Checklist: Observable Clues to Classroom Vision Problems".

The first phase begins by alerting school nurses to possible cases of vision impairment in any of the severely impaired students in their schools. In the Philadelphia School District, the nurse is required to screen all children for vision defects on a yearly basis. Since these children do not respond to conventional screening, it is suggested that he/she complete the Educator's Checklist for each child instead. After consultation with the classroom teacher, the nurse then decides which children should be referred for a formal vision evaluation.

III. Testing Considerations

Before formal assessment begins, considerable attention is given to those factors which could affect a child's visual responses. Poor or inadequate responses often stem from sources other than a faulty visual system. Possible over-emphasis on mental level as one such factor has led the authors to examine other factors that should be given equal attention.

A. Medical Considerations

1. Ophthalmological information: As stated earlier, we are not concerned that visual acuity does not appear in the ophthalmological reports of these children. However, all ophthalmological information is carefully scrutinized in order to provide clues as to what the child can be expected to see. For instance, "enucleation O.D." tells us immediately that we need not bother evaluating vision in the right eye, since it has been surgically removed. A less obvious example is "pale discs o.u.", which is an indication of optic atrophy in both eyes. Although we cannot determine the degree of atrophy or assume a level of visual functioning from it, we do know that there is damage to the optic nerve and, thus, that the child is suffereing some degree of visual loss.

Interpretation of ophthalmological reports must be done with a great deal of caution due to the highly technical terminology employed. In addition, the information reported may be of questionable accuracy. It is not uncommon to observe very positive signs of useful vision in a child, even though the eye report has indicated "cortical blindness". The ophthalmologist sees the child for a brief time in an environment that may be very upsetting to the child. Often, the child becomes withdrawn and unresponsive. Therefore, the examiner should trust his/her own observations. When in doubt, consult the ophthalmologist who performed the examination. Additionally, a good ophthalmology text can provide invaluable background information.

It is an indispensable tool.

2. Medications: It is important to know what medication(s) the child is receiving and the possible effects on vision and overall ability to attend. Many medications affect pupillary response, produce blurred vision, double vision, and/or drowsiness. Check the child's medication schedule and arrange to do your testing during the child's optimal level of alertness.
3. Seizure disorders: Determine whether the child is subject to seizures, of any kind. Often during evaluation, a child may be totally unresponsive for minutes or seconds at a time. He may well be having a seizure even though there are no motoric manifestations. Wait a minute or two before continuing the assessment or try again at another time.
4. Effects of other handicaps: It is important to determine whether a child has other handicaps which could account for misleading responses. For instance, sound toys and verbal praise lose their usual effectiveness as attention-getters and reinforcers for children who have hearing impairments. (Effective reinforcement is a critical factor in eliciting visual responses, as will be discussed.)

   In another instance, an uninformed evaluator might incorrectly attribute the random and spastic reaching attempts of a child with cerebral palsy to poor vision instead of impaired motor ability.
5. Unusual behaviors: If a child is known to bang his head against the wall or floor, immediately alert the parent or person in charge that cataracts, retinal detachment, or glaucoma could result. Insist that the child be seen periodically by an eye specialist for early detection of these possible effects. Re-test such a child yourself more often than you normally would.

B. Reinforcement Considerations: Reinforcement is important not only in programming, but in assessment as well. If you want a student to cooperate with you, make it worth his time and effort. If you present a light to the right eye and he looks at it, reward him so that he'll look at it when you present it to the left eye. Otherwise, he will stop looking and cooperating and your assessment will come to a quick halt.

1. Primary reinforcers-food: Many severely impaired children will respond well to food reinforcers. Before trying any food, however, check with the teacher to discover the child's preferences for sweet or salty, applesauce or candy, etc. Find out if the child has ulcers, diabetes, or allergies. Children with these conditions may often not be given chocolate or any sweets. For children who cannot chew or swallow, a few grains of sugar or salt placed on the lips or tongue can be reinforcing. For these and other reasons, food reinforcement should be kept to a minimum and used only if the child responds to nothing else.
2. Social reinforcement: Surprisingly, many of these children respond well to social reinforcement, whether verbal or tactual. Use a soothing or pleasant tone of voice, pronouncing the child's name whenever a desirable response is obtained. A gentle or firm rubbing on the child's arm, leg, or stomach may also please him. Again, the teacher can probably tell you what the child likes and dislikes.
3. Light reinforcement: Often teachers say that the child does not respond to any reinforcement at all. This may be true. However, many children in this category have responded to clear or colored light, especially red light. A regular flashlight with replaceable colored plexiglass lenses can be used. Sometimes this must be done in a dark room. Some children even prefer the clear lens shone directly into

their eyes (one word of caution-- this causes a "blacking-out" of the visual system during which the child sees absolutely nothing for several seconds after the light has been removed-- wait for the child's eyes to readjust to the light level in the room before continuing the evaluation).

Specific types of lighting (blinking, strobe) have also been found to be very reinforcing. Very rapid blinking lights must be used with caution since they may elicit seizures in a few children.

4. Sound reinforcemnet: Unless a child is hearing impaired, auditory reinforcement may work well. Sound toys, music, clapping, clicking, and whistling are examples of effective sound reinforcement.
5. Object reinforcement: Interest is a factor that greatly determines the effectiveness of reinforcers. Generally, children whose mental level is at the upper limits of the SPI range will respond well to the presentation of an unusual or brightly colored object or toy.

A final note on the issue of reinforcers: rely on the classroom teacher-- he/she usually knows the students best and can tell you who likes candy, who likes sound, who likes light, etc. If the teacher is unable to provide this information, use trial and error. It is essential to remember the basic tenet: no child is untestable.

C. Time Considerations

1. Medication schedule: As mentioned above, many severely impaired children are on seizure control and other kinds of medication which often produce extreme drowsiness, in proportion to the type and magnitude of dosage. The classroom teacher will know when the side effects of the medication are strongest. Avoid these periods.
2. Nap schedule: Do not attempt an evaluation during the child's scheduled nap time. Additionally, different children tire at different times of the day. Avoid those periods of predictable normal tiredness for each child.

3. Lunchtime: For many children, lunch is the highlight of the day—a time to participate in an activity that is usually very meaningful to them. For this reason, it provides an excellent opportunity for one to observe their visual behavior. In fact, in some cases, a child may respond to nothing during formal assessment, but demonstrate positive signs of useful vision by visually following the spoon from bowl to mouth. An experienced evaluator can use feeding time to further determine if the child uses one or both eyes, if he can focus, follow, track, and reach for objects (in this case food, spoon, and/or evaluator's arm).

4. Time of residence: This refers to length of time in a residential facility or in a particular classroom, or even with a particular teacher. Children are very sensitive to changes in the environment and often become totally withdrawn and unresponsive after such a move. If this is the case, give the child a few months to adjust to the new situation before you attempt an evaluation.

Unless you make this allowance, your results may be entirely misleading.

D. Location: The best place to perform a good vision evaluation is in a quiet room large enough for at least two adults and the child. Ideally, it should be easily convertible from a very bright, well lit atmosphere to a very dark one.

IV. <u>Formal Assessment-- Light Chart, Object Chart, Evaluation Summary</u>

Finally, once all the preliminaries of phases one and two are completed, formal assessment begins. All findings are recorded on the Light Chart, and/or the Object Chart and on the Evaluation Summary. A completed sample of each has been included at the end.

Items on the charts are sequenced according to levels of visual response.

A general response to a bright light in a dark room (Light Chart) is the lowest level of visual functioning, while reaching for 1/16 inch

object at several feet (Object Chart) is a very high level of visual functioning. One does not usually proceed from beginning to end, covering all the items on both charts with a child. Always begin with the highest known level of visual response. If this is not known, begin with objects. If a child responds at this level, there is no real need to test for response to light, except to obtain specific information such as whether the child is photophobic. If a child sees objects, we already know he sees light.

If a child does not respond to objects, test for response to light in a lighted room. If that fails, turn to response to light in a dark room.

It is often productive to proceed forward again from response to light in a lighted room, to response to objects. A few children do not begin responding until light is presented in a dark room, but once you have gained their attention with light, they begin responding. They may then respond even to objects. Always try higher levels even if they fail initially.

The presence of two evaluators is recommended for the purposes of physical assistance and response reliability (a second opinion). A classroom aide or volunteer can be used instead. If you must work alone, make every attempt to prop the child in an upright position. One method is to seat the child in a beanbag chair in the corner, leaning his head slightly backward against the adjoining walls. Use pillows and bolsters on either side to keep the child from falling. To increase response reliability, repeat the same item two or three times if you are not certain whether the response was actually intended or just random.

A. Light Chart

1. In dark room.

a. General response: By this we mean any change in existing behavior upon presentation of a visual stimulus. Before any stimulus is introduced, observe the child's normal behavior and movements. Then introduce the stimulus and look for any change. This could be: eye

eye or limb movement, cessation of eye or limb movement; verbalization; turning of the head or eyes away from or in the direction of the stimulus; blinking, tearing, squinting, or other signs of annoyance or pleasure.

Several kinds of light should be used. First try a small penlight, then a flashlight, colored light, a spotlight, movie camera light, or a strobe light. Increase the intensity of the light until some response is elicited. Flashing or blinking light elicits otherwise difficult to obtain responses, although, as noted above, in rare instances this may cause seizures. Occasionally, it is necessary to keep a child in total darkness for ten to twenty minutes before presenting light. Avoid shining light directly into the eyes, as this causes a blacking out of the visual system, as described earlier.

Patch one eye, then the other. Move the light around the child's visual field, noting at what approximate area or areas in the field the child seems to respond. Indicate on the chart the kind of response, the general fields, and what type of light was used successfully for right eye, left eye, and both eyes.

b. Pupil response: Patch one eye, then the other. Use the light to which the child most readily responded previously. Shine the light from an angle, again avoiding a visual blackout. Shine the light momentarily, noting whether the pupil constricts, then move it away, noting whether the pupil dilates. If not, shine the light for a few seconds or longer, allowing for the fact that the pupils may take more time to constrict and dilate. If necessary, increase the intensity of light until a pupillary response is obtained. Again, a ten to twenty minute period in total darkness may be necessary before the introduction of the light. Indicate on the chart for right eye and left eye, what light was used and the approximate time it took for each pupillary reaction to occur.

Interpretation of pupillary response is extremely difficult. In isolation, it tells us very little about the presence of useful vision. Absence of pupillary response does not necessarily indicate lack of vision and vice-versa. This information only becomes meaningful in combination with other findings. For this reason, the evaluator should not spend an inordinate amount of time on this item, but should go on to more meaningful information yielding items.

c. Peripheral response: The detection of simple gross field loss is the aim of the peripheral fields test. If the child responded well to the peripheral fields test with objects, this section need not be included. Again, this is a <u>functional</u> assessment, and we want to know whether to use objects or light, and how to present them in programming for vision stimulation. If the child sees objects, we want to know in what parts of the field he sees them best. If the child has a gross left temporal loss, the teacher will not present objects or light to his extreme left.

It is essential to spend considerable time on this section, particularly if responses are minimal. If a child has vision only in the lower right quadrant of the right eye, he may be trained to use it. Therefore, it is advisable not to rush this section and thereby overlook an extremely important area for programming.

An example of significant results is the case of R. The student demonstrated useful vision only in the upper left eye. It was difficult to tell whether he actually had object perception or only light perception. Therefore, a tiny metallic object which reflected a great deal of light was suspended from a string and used in programming. The teacher first presented it in the known field, then began moving it slightly out of that field.

After weeks and months, the child not only began moving his head to keep the object in view, but also began reaching and grasping for the very first time. Gradually, non-reflecting solid objects were used and then a mobile of objects was hung overhead. R. would spend long periods of time reaching and grasping for the different objects. The significance of careful vision assessment followed by an individually tailored program is well illustrated by R.'s case.

Ideally, the test should be performed using a penlight. If the child has demonstrated no response to a penlight, use the largest flashlight to which he previously responded. Patch one eye, then the other to determine the peripheral field for each. Two people are necessary to do a thorough peripheral evaluation. One person sits 12 to 18 inches in front of the child holding a penlight (or other light), maintaining the child's attention. The other person stands behind the child and holds the second light at each of the eight positions in the visual field, corresponding with the numbered spokes on the peripheral response chart. A distance of 8 to 12 inches from the face is maintained throughout. Person "A" in front of the child keeps the light shining until person "B" behind the child has his light in position. Then A Turns off his light while B simultaneously turns his on. The child shifts his attention to B's light, indicating that he sees it. He does this either by turning his eyes, head, or body in the direction of B's light.

If a response is not obtained at the outer limit of the spoke, B continues to move toward the center of the visual field (see chart) until a response is obtained. When the child responds, the point at which he responded is plotted by placing a dot on the corresponding spoke, at the approximate point of response. This is done for each of the eight spokes, for each eye.

The dots are then connected and a pattern is formed. A perfect circle (with all connected dots being at the outermost edge of each spoke), represents normal peripheral fields. Less circular patterns (created by some dots being placed at positions nearer the center of the spokes) represent some degree of peripheral field loss. Field losses are generally recorded as upper, lower, temporal, nasal, or some similar variation (upper right quadrant).

It is recommended that the soundless type of penlight be used rather than the ones that "click" on and off. This eliminates the confusing possibility that the child is responding to the sound of the "click" rather than to the shining of the light.

d. Focusing: Unlike "General Response" where we are merely trying to determine if the child sees light, focusing implies that he has the ability to look at the light for at least three consecutive seconds. Again, the test is done with right eye, left eye, both eyes. Hold the light in front of the child, about twelve inches from his face, again avoiding the shining of direct light into the eye. On the chart, record for each eye and for both, the kind of light used and the length of focusing time, from "three seconds" to maintained steady focus".

e. Following: By "following" is meant that the child moves his head and eyes to watch light moving in space in an arc from right to left and back again, and from upward to downward and back again. Begin by holding the light twelve inches from the child's face. Obtain a focusing response, then move the light in each of the designated arcs. On the chart, circle for each eye and both, that the child followed R(right), L(left), U(up), D(down).

f. Tracking: Tracking is merely refined "following", in which the child moves only his eyes. It may be necessary to physically hold the child's head in a stationary position. The test is performed and recorded exactly as it is for "Following".

g. Reaching: Of course, reaching is not a visual skill, nor is this item intended to measure eye-hand coordination or any other visual-motor skill. Reaching may not be at all precise in cerebral palsied children, for instance. Therefore, this item is used solely as positive confirmation that the child indeed sees the light. If he is reaching in the direction of the stimulus, it is a definite indication he is seeing it.

2. In lighted room: All items are exactly the same as those in 1(Response to light in a dark room). As explained above, this section is filled out only when response to objects has failed, and possibly after Response to light in a dark room has succeeded as the only level of response.

B. Object Chart: The items in the Object Chart are identical to those in the Light Chart (except for Pupil Response). That is, we test General Response, Peripheral, Focusing, Following, Tracking, Reaching. The aim is to determine and record the smallest object the child can see at the greatest distance. Objects range in size from 12 inches to 1/16 inch, and distances range from 6 inches to 10 feet. The objects themselves are selected on the basis of interest and variety. Food items are often used because of their high interest level. Other objects include: brightly colored, high contrast, light reflecting, non-light reflecting, moving, and stationary. Many red objects are used (the color red has the longest rays in the spectrum and is the easiest to see, even by children with very low vision). Sound toys are used to obtain initial attention to the task, when necessary. Although expensive kits containing such items are available, the authors have found that items can be purchased at lower cost in toy stores and department stores and are equally effective.

Begin by patching one eye then the other. Larger items are introduced at closer ranges to obtain a General Response for right eye, left eye, both eyes. Gradually, the distance is increased and the object size decreased.

Extensive time is spent on general response, because it establishes an important parameter for the remainder of the test. The smallest object size to which the child responded is the one generally used throughout. The same is true for the distance. For example, if the child gives a general response to a 2 inch ball presented to the right eye at 4 feet, one would continue testing the right eye by presenting 2 inch (or smaller) objects from at least 4 feet for the remaining items.

The Peripheral Response test is done in a somewhat different manner with objects than it is with light. Person A keeps the child's attention focused centrally, and watches and records the responses. Person B stands behind the child and presents the items, beginning at the outer edge of each spoke and gradually moving closer into the central field toward the pupil. The point at which the child responds is plotted by placing a dot on the corresponding spoke, at the approximate point of response. This is done for each of the eight spokes, for each eye. The dots are then connected as described earlier in "Peripheral Response" with light.

The remainder of the test for response to objects--Focusing, Following, Tracking, Reaching, is administered exactly as it was for light. In recording the responses for focusing and reaching, the examiner indicates the smallest object responded to, at the greatest distance.

C. Evaluation Summary: The Evaluation Summary form contains all items of all facets of assessment: Identification, Testing Conditions, and Formal Evaluation. It represents a complete concise method of recording all findings. The last item on the Evaluation Summary, not yet addressed, is "General Recommendations." The itinerant vision consultant reviews and interprets all findings and translates them into practical suggestions to be used in programming.

V. Interpretation and Use of Results

As mentioned in the Introduction, the assessment results are used a.) to identify children who are visually handicapped; b.) to establish a starting point for vision stimulation; c.) to give the classroom teacher meaningful information concerning a child's visual functioning.

A. Classification: A child is classified as visually handicapped if his vision problem interferes significantly with classroom learning. If a student responds only to light in a dark room, he is clearly visually handicapped, since classroom learning will be adversely affected by his limited vision. If, on the other hand, a student consistently responds to 2 inch objects from a distance of 5 feet or more, he would not be classified as visually handicapped, since virtually all of his learning takes place within those limits. Classroom learning will not be affected by his vision-- even if he has a specific diagnosis such as nystagmus, mild optic atrophy, etc.

Prognosis is another important factor. If a child's vision is adequate for classroom functioning now, but is expected to deteriorate rapidly, he may well be considered eligible for vision services.

B. Vision stimulation: If a child responds inconsistently to a small penlight, but consistently to a large red flashlight, programming would begin with the latter. He focuses consistently well, but does not follow, track, or reach for the light. Therefore, following, tracking, reaching, are the skills to be trained.

If, on the other hand, he responds to 10 inch objects from only a foot away, programming would begin here, and aim at increasing the distance, while decreasing the object size.

C. Expected visual performance in the classroom: Again using the case

of a student who is found to have only responses to light in a dark room, the teacher is advised not to carry on activities which are specifically visual in a lighted classroom. Such a child must be taught through the other senses. At the same time, vision stimulation activities in the dark are prescribed to improve the level of visual response.

A child who responds to 1/16 inch objects from several inches has very good functional vision, and the teacher is asked to encourage that functioning by using small objects during instruction. Likewise, if he responds only to very large (10 inches or more) objects, the teacher is advised not to use objects any smaller than that until his level of visual functioning can be improved through vision stimulation.

VI. Conclusion

What has been described is a highly successful and practical approach to assessing the visual functioning of any severely and profoundly impaired student. Because Philadelphia is such a large school district, we have an extensive population of SPI children. This has given us the advantage of relatively large numbers of pupils with whom to work over the years. It is hoped that by sharing this information, we can help students and teachers in smaller and/or rural areas who lack this advantage. We know it is the wish of all those in the field of the visually handicapped to better serve this population of students through improved testing and programming. It is our intention to contribute to the realization of that goal.

SAMPLE

EDUCATOR'S CHECKLIST

OBSERVABLE CLUES TO CLASSROOM VISION PROBLEMS

NAME: Kevin Miller

D.O.B.: 2/12/70

DATE: 2/2/80

NURSE: Janet Cook

I. Appearance of Eyes

A. One eye turns in or out at any given time
B. Reddened eyes or lids
C. Eyes tear excessively
D. Frequent sties on lids
E. Crossed eyes
F. Encrusted eyelids
(G) Presence of cataracts- right eye
H. Absence of iris
I. Absence of pupil, or presence of more than one pupil
J. Abnormally small eyes
K. Abnormally protruding eyes
L. Roving or jerky eye movements
M. Absence of an eye

II. Indications on Ophthalmological or Other Medical Records

(A) Cataracts or cataract surgery - right eye
B. Aphakia (absence of lens of the eye)
C. Cortical blindness
D. Optic atrophy
E. Strabismus
F. Amblyopia
G. Retinal pathology

1. Retinitis pigmentosa
2. Retinal detachment
3. Diabetic retinopathy
4. Retinal blastoma

H. Retrolental fibroplasia
I. Rubella
J. Glaucoma
K. Albinism
L. Hydrocephaly
M. Nystagmus
N. Photophobia
O. Exotropea
P. Esotropia
(Q.) Myopia - both eyes

R. Hyperopia
S. Astigmatism
T. Macular degeneration
U. Microophthalmia
V. Exophthalmia
W. Aniridia
X. Enucleation

III. Behavioral Symptoms *

A. General Behavior

1. Lack of curiosity about environment
2. Hyperactivity
3. Withdrawal behavior
(4.) Irritability, temper tantrums, frequent crying
5. Child refuses to wear or dislikes wearing glasses (glasses may not be helping)
6. Complaints of:

a. Headaches
b. Burning or itching of eyes
c. Nausea or dizziness
d. Blurred vision

* Symptoms may be present with or without glasses.

B. Visual Behavior

(1.) Does not respond to visual stimulation

a. Light

(1) No pupil contraction
(2) Does not blink, squint, or turn head to avoid bright light
((3)) Exhibits extreme sensitivity to light stimulation
((4)) Does not fixate, focus or track light

b. Objects

((1)) Does not fixate on, focus, or track brightly colored objects or food
((2)) Does not reach for objects
(3) Misses target when reaching for objects
(4) Uses touch instead of vision when manipulating objects

(2.) Responds to auditory but not visual stimuli
3. Does not make eye contact
4. Keeps eyes closed (could be photophobia)
5. Squints
6. Rubs eyes

7. Holds hand over one eye
8. Tilts head
9. Thrusts head forward
10. Keeps body rigid while looking at distant or near objects
11. Holds objects close to eyes for inspection

C. Feeding Behavior

1. Self-feeds except for scooping food from plate (May not see food)
2. Puts too much food on the spoon
3. Puts too little or no food on spoon
4. Feels around the plate with spoon
5. Feels plate or food with hand before scooping

D. Blindisms

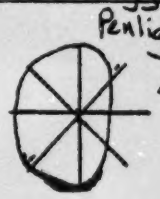
1. Rocking
2. Light gazing
3. Moving fingers in front of eyes
4. Poking fingers in eyes

PROGRAM FOR THE VISUALLY HANDICAPPED
SCHOOL DISTRICT OF PHILADELPHIA

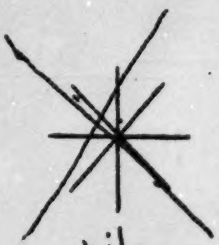
NAME OF STUDENT Kevin Miller VISION CONSULTANT Ms. Roberts

D.O.B. 2/12/70 DATE 2/2/80

LIGHT CHART

	RIGHT EYE	LEFT EYE	BOTH EYES
I. In Dark Room			
A. General Response	Visual attention to penlight	Visual attention to penlight.	Visual attention to penlight.
B. Pupil Response	Penlight Sluggish	Penlight Sluggish	
C. Peripheral Response			possible detachment due to head banging
D. Focusing	Penlight-5 sec.	Penlight-5 sec.	
E. Following	(RLUD)	(RLUD)	(RLUD)
F. Tracking	(RLUD)	(RLUD)	(RLUD)
G. Reaching	none	none	none
II. In Lighted Room			
A. General Response	response	same as above	same as above
B. Pupil Response			
C. Focusing			
D. Following	RLUD	RLUD	RLUD
E. Tracking	ORLUD	RLUD	RLUD
F. Reaching			

OBJECT CHART

	RIGHT EYE		LEFT EYE		BOTH EYES	
	Smlst. Size	Grtst. Dist.	Smlst. Size	Grtst. Dist.	Smlst. Size	Grtst. Dist.
A. General	nil	nil	10"	8"	10"	8"
B. Peripheral	 nil		Temporal field loss		possible detachment due to head banging	
C. Focusing	nil		10" 8" 5 sec.			
D. Following	~~R L U D~~ nil		(R) (L) (U) (D)		(R) (L) (U) (D)	
E. Tracking	~~R L U D~~ nil		(R) L (U) (D)		(R) L (U) (D)	
F. Reaching	nil		no		no	

SAMPLE

PROGRAM FOR THE VISUALLY HANDICAPPED
SCHOOL DISTRICT OF PHILADELPHIA
64th and Malvern Avenue
Philadelphia, Pa. 19151

EVALUATION SUMMARY

NAME OF STUDENT: Kevin Miller ITINERANT VISION CONSULTANT: Ms.Roberts

D.O.B.: 2/12/70 DATE OF EVALUATION: 3/14/80

SCHOOL: Shallcross

REVIEW OF SCHOOL NURSE'S FINDINGS: See Educator's Checklist

MEDICAL CONSIDERATIONS

OPHTHALMOLOGICAL: Wills Eye Hospital - 1/10/80: Cataract O.D.; Myopia O.U.

MEDICATIONS: Phenobarbital for seizure control

SEIZURES: Yes X No ____ Type Grand Mal

OTHER HANDICAPS OR CONDITIONS: Cerebral Palsy; Spastic Quadraplegic

UNUSUAL BEHAVIORS: Self-abusive head banging

REINFORCEMENT: Allergic to chocolate; no response to social reinforcement; likes salty substances

TIME CONSIDERATIONS

MEDICATION SCHEDULE: Phenobarbital - ¼ grain 3 x day--7 AM, 1 PM, 7 PM

NAP SCHEDULE: Approx. 9 - 10 AM

LUNCH SCHEDULE: 12:00 Noon

TIME OF TESTING: 11:00 - just prior to lunch when medical effects are minimal

TIME OF RESIDENCE: 1 year with same teacher in same building

SAMPLE

LOCATION: ACTUAL LIGHTING AND NOISE CONSIDERATIONS: Large cloak room with no windows - very dark; also bright lighting.

INTERVIEW WITH CLASSROOM TEACHER: Teacher says child does not seem to see anything

SUMMARY OF RESPONSE TO LIGHT: O.D. Using penlight in dark room - general, focusing, following, tracking; normal fields; no responses in lighted room. O.S. - Same as right eye, except a left temporal field loss was detected. (Possible retinal detachment due to head banging.)

SUMMARY OF RESPONSE TO OBJECTS: O.D. - No responses to objects. O.S. - 10 inch object at a distance of 8 inches for general, focusing, following, tracking. No reaching.

Peripheral - left temporal field loss.

GENERAL RECOMMENDATIONS:

1. Kevin can be classified as visually handicapped
2. Immediate ophthalmological exam to check for possible retinal detachment of left eye possibly due to head banging; investigate removal of cataract of right eye
3. Place objects directly in front of left eye only.
4. Until visual functioning is improved, teacher should use objects 10 inches or larger at very close ranges of 8 inches or closer.
5. Concentrate on improving use of functional vision in left eye by decreasing object size and increasing distance.
6. Increase focusing time beyond 5 seconds.